## Remarks

The present amendment responds to the Official Action dated September 28, 2004. The Official Action objected to the specification. The Official Action objected to the drawings. The Official Action rejected claims 1-4 and 10-12 under 35 U.S.C. 102(a) as anticipated by NEC Corporation, "Character Pattern Editor for On-Screen Display of LSI for Windows", User's Manual, November 2000 ("NEC"). The Official Action rejected claim 5 under 35 U.S.C. 103(a) as unpatentable over NEC in view of Ballard U.S. Patent No. 6,529,197 ("Ballard"). The Official Action recited a rejection of claims 6-10 under 35 U.S.C. 103(a) over NEC and Ballard and further in view of Spitz U.S. Patent No. 5,513,304 ("Spitz"), but it is believed that this ground of rejection was intended to apply to claims 6-9 because claim 10 was rejected on the ground referred to above. These grounds of rejection are addressed below following a brief discussion of the present invention to provide context.

Proposed corrected drawings for the Examiner's approval and a full set of replacement sheets are submitted herewith. The specification has been amended. Claims 1, 6 and 10 have been amended to be more clear and distinct. Claims 1-12 are presently pending.

### The Present Invention

A dot matrix display design tool according to the present invention is preferably implemented in software on a computer. The display design tool includes a character set designer, allowing a user to construct a character set comprising a set of characters having any one of a number of matrix sizes. Matrix sizes are typically expressed as X by Y, where X is a number of pixel columns and Y is a number of pixel rows. The character set designer allows the

user to specify the matrix size and create a design for each character in the character set, with the user being allowed to specify pixel values for each location in a matrix.

The design tool also includes a display designer for use once a character set has been created. The display designer allows the user to vary desired characteristics of the visual appearance of the display, such as matrix dimensions, pixel shape, inter-pixel separation and other characteristics. The display designer displays a value for each modifiable display characteristic. These values are therefore readily available for analysis in order to evaluate unit costs or to provide engineering specifications needed in manufacture of a display.

The design tool further includes a display viewer which allows a user to simulate an operating hardware display, and to specify and view additional characteristics of the display, such as display labeling, housing shape and color. The user is also able to specify characteristics such as message frequency, scrolling speed and frequency, interword spacing and punctuation spacing. The user is thus able to view a "virtual" hardware device, for example a "virtual" electronic price label, which exists simply as a display on a computer monitor but which allows the user to see how the device would appear when manufactured and to modify the operating characteristics of the device in order to achieve the desired characteristics.

Objections to the Specification

The Official Action objected to the specification at page 9, line 2, page 9, line 3 and page 10, lines 1 and 4. With the present amendments to the specification, the objections have now been overcome and should be withdrawn. Additionally, several other numbering errors of a typographical nature were also noted and corrected.

Objections to the Drawings

The Official Action objected to Figs. 2, 4, 5 and 6. The specification has been amended to correct a reference to Fig. 2 and proposed amended drawings for Figs. 4, 5 and 6 are submitted herewith. The objection to the drawings has therefore been overcome and should be withdrawn.

The Art Rejections

All of the art rejections hinge on the application of NEC, Ballard and Spitz, standing alone or in combination. As addressed in greater detail below, NEC, Ballard and Spitz do not support the Official Action's reading of them and the rejections based thereupon should be reconsidered and withdrawn. Further, the Applicant does not acquiesce in the analysis of NEC, Ballard and Spitz made by the Official Action and respectfully traverses the Official Action's analysis underlying its rejections.

The Official Action rejected claims 1-4 and 10-12 under 35 U.S.C. 102(a) as anticipated by NEC. In light of the present amendments to claims 1 and 10, this ground of rejection is respectfully traversed.

Claim 1, as amended, claims a display designer comprising a text input entry interface for text input by a user and a character set selection interface to allow user selection of a selected character set for displaying the text. The display designer further comprises an operating characteristics interface for receiving operating characteristics entries specifying operating characteristics of an operating display to be emulated. The display designer further includes a display emulator presenting a representation of the operating display. The representation of the operating display presents the text input in a format reflecting the selected character set and

exhibiting the operating characteristics specified by the operating characteristics entries. The display designer further includes a set of editing tools to allow modification of the display in response to selections made by a user. The editing tools allow for modification of the character set and the operating characteristics of the display. Modifications made using the editing tools are reflected in the appearance of the text as presented by the display emulator. These features in the claimed combination are not taught by NEC.

NEC teaches a character designer and editor, allowing creation of character sets and display and modification of the character sets as part of the design process. NEC does not teach receiving operating characteristics entries allowing specification of operating characteristics of an operating display to be emulated and display of a text input specified by a user and presenting a representation of the operating display with representation of the operating display presenting the text input in a format reflecting the selected character set and exhibiting the operating characteristics specified by the operating characteristics entries. Further, NEC does not teach a set of editing tools to allow modification of the display in response to selections made by a user, with the editing tools allowing for modification of the character set and the operating characteristics of the display, with modifications made using the editing tools being reflected in the appearance of the text as presented by a display emulator. The present invention, as claimed by claim 1, allows for emulation of an actual display device exhibiting specified operating characteristics and displaying specified text that is part of a specified character set, and modification of characteristics of the contemplated display device, with the results of the modification being immediately visible. Such emulation allows a designer to see the appearance

of a design and to investigate the effects of design choices, in contrast to NEC, which is directed simply to the design of a character set rather than to the overall design of a display device. Claim 1, as amended, therefore defines over the cited art and should be allowed.

Claim 10, as amended, claims displaying a message using a selected character set design. The display of the message presents text specified by a user and is presented as the message would appear in an operating display using the selected character set design and exhibiting operating characteristics chosen in response to user specifications. Claim 10 further claims modifying aspects of the design in response to user selections, the appearance of the display of the message being immediately altered to reflect each user selection. As noted above with respect to claim 1, NEC does not teach presenting specified text as it would appear in an operating display using a selected character set design and exhibiting operating characteristics chosen in response to user specifications, and modifying aspects of the design in response to user selections with the appearance of the display of the message being immediately altered to reflect each user selection. Claim 10, as amended, therefore defines over the cited art and should be allowed.

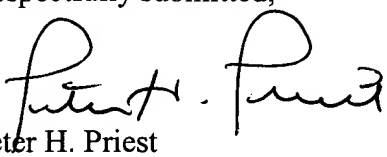
The Official Action rejected claim 5 under 35 U.S.C. 103(a) as unpatentable over NEC in view of Ballard. Claim 5 is a dependent claim having claim 1 as a base claim. Because claim 1 has been shown to be allowable, claim 5 should also be allowed.

The Official Action rejected claims 6-9 under 35 U.S.C. 103(a) as unpatentable over NEC in view of Ballard and Spits. Claims 6-9 are dependent claims having claim 1 as a base claim. Because claim 1 has been shown to be allowable, claims 6-9 should also be allowed.

Conclusion

All of the presently pending claims, as amended, appearing to define over the applied references, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted,



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# FIG. 4

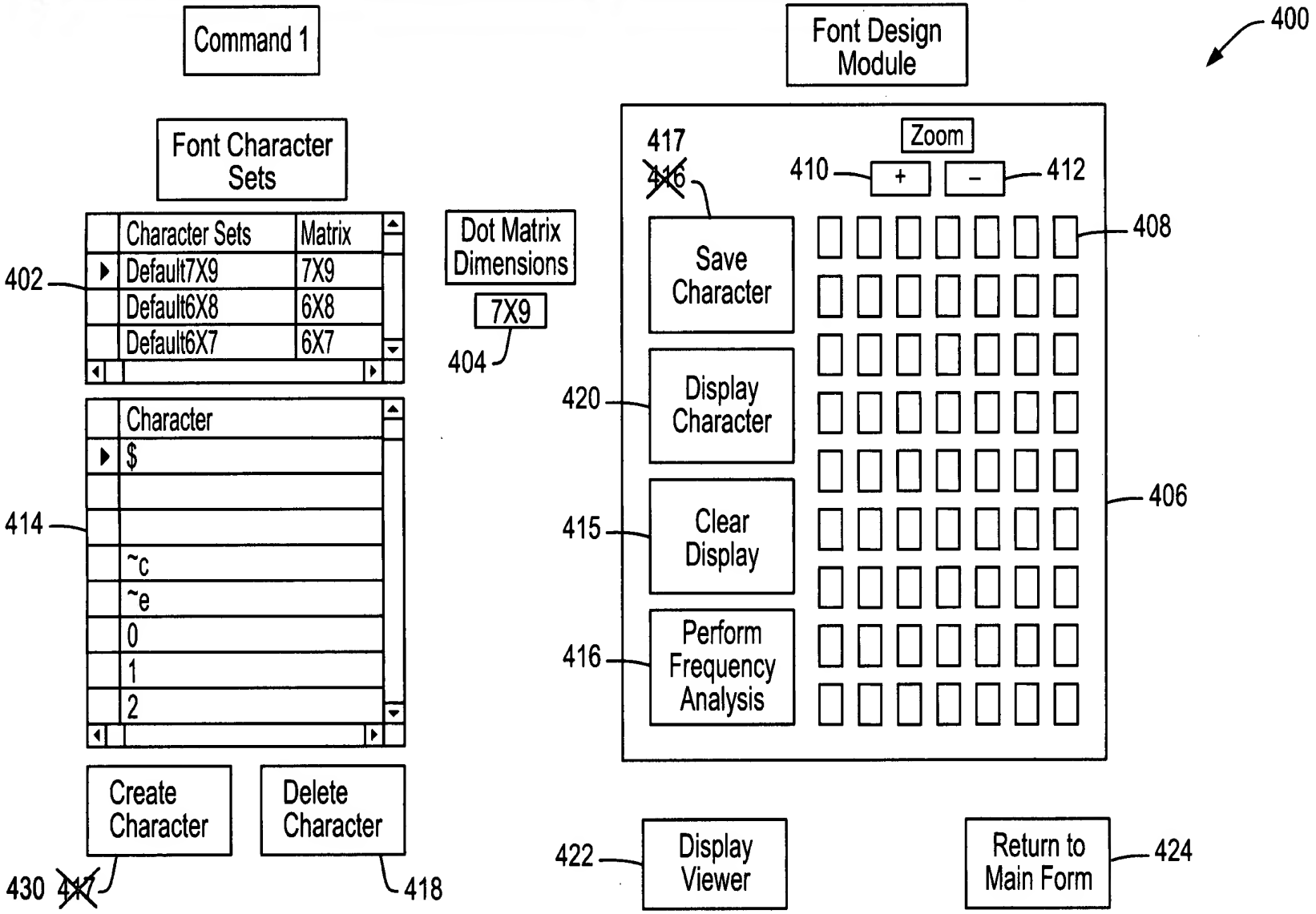

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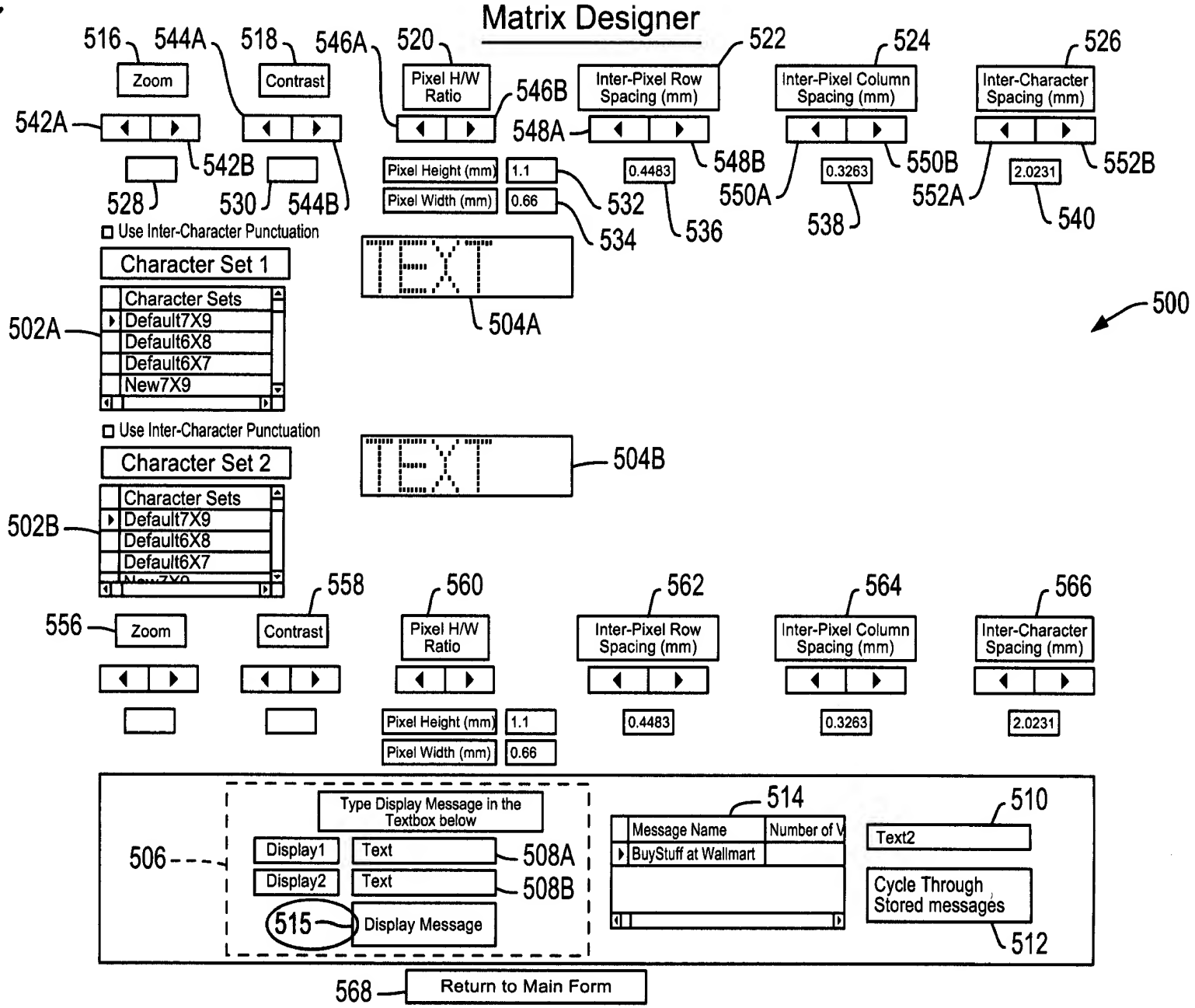
FIG. 5



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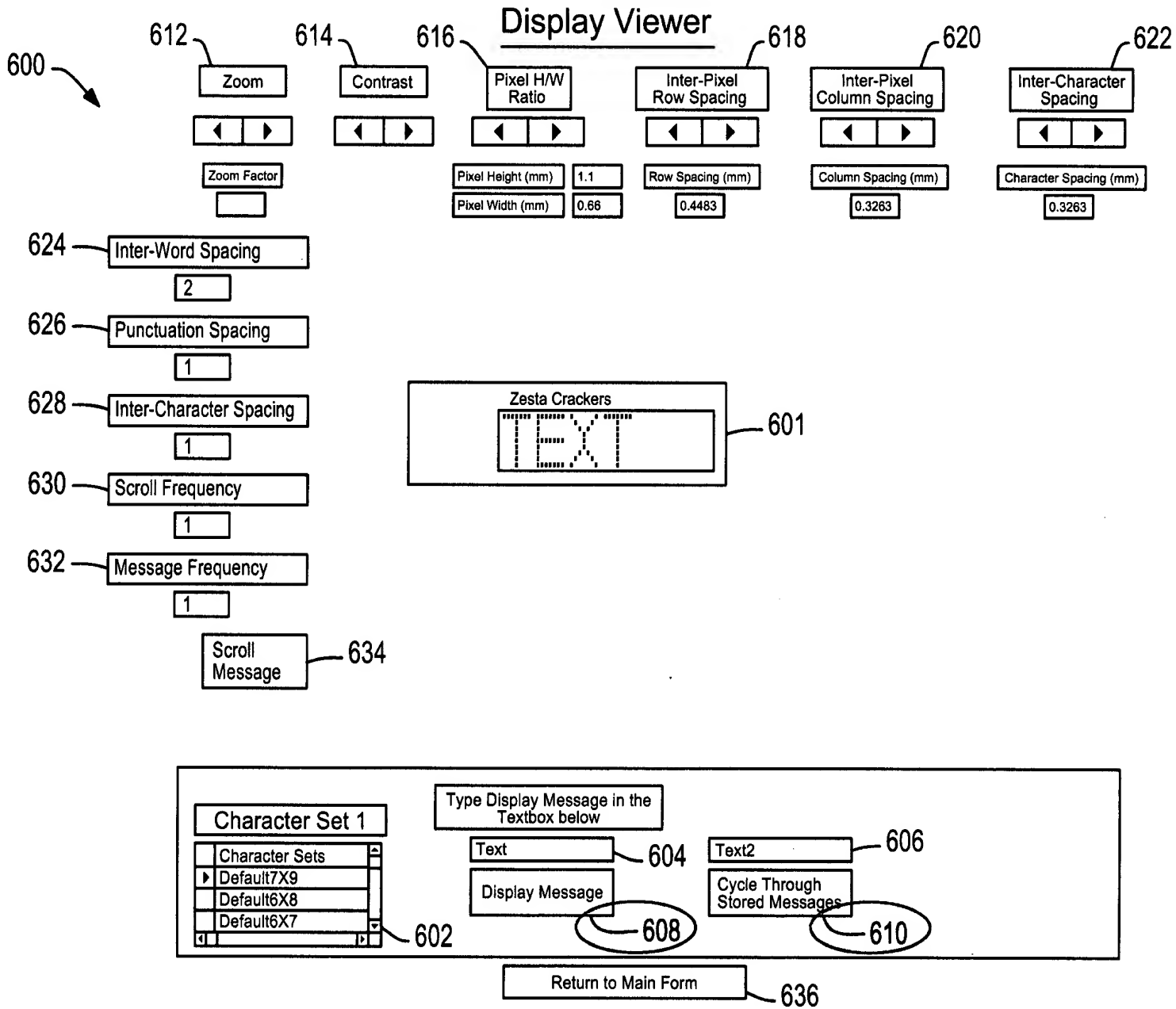
FIG. 6